Environmental Resources Management

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12 January 2015

Mr. Roger Papler, PG
Engineering Geologist
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, California 94612

Subject: Report on Sealing of Slab Penetrations,
Former Siemens Facility
Intersil/Siemens Superfund Site
Cupertino, California
Site Cleanup Requirements Order No. 90-119

Dear Mr. Papler:

On behalf of the SMI Holding LLC (SMI), ERM West, Inc.(ERM) has prepared this *Report on Sealing of Slab Penetrations, Former Siemens Facility* for the Intersil/Siemens Superfund Site in Cupertino, California (Figure 1). The purpose of this letter is to document the slab penetration sealing that was performed in December 2014 around the floor slab penetrations that were installed for the fire suppression system at the former Siemens Facility building (Figure 2).

The results of the indoor air sampling that was conducted at for the former Siemens Facility were presented in the Report of Results – Potential Vapor Intrusion Evaluation at the *Former Siemens Facility*[1] which was submitted on 22 April 2014. Results from indoor air sampling conducted in 2002, 2007, and 2014 confirmed that there is no unacceptable risk to indoor workers associated with constituent of concern reported in subsurface soil or groundwater. For these reasons, no further vapor intrusion assessment was recommended at the former Siemens facility. The Regional Water Quality Control Board (RWQCB)

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[1] ERM. 2014. *Report of Results – Potential Vapor Intrusion Evaluation at the Former Siemens Facility, former Siemens facility, Cupertino, California.* April 22.

and U.S. Environmental Protection Agency (USEPA) issued a No Further Action letter on 19 November 2014[2] (Water Board, 2014).

In follow-up conversations, the USEPA and RWQCB noted their preference to have preventative sealing of slab penetrations performed, even given the absence of screening level exceedances in breathing zone samples. Based on this request from the RWQCB and the USEPA, and with the concurrence of the building owner and tenant, SMI performed sealing activities in areas that contained floor slab penetrations which were installed for the fire suppression system. A summary of the activities completed is presented below.

Summary of Activities Completed

On 19 and 23 December 2014, a trio of vapor sealant products were applied to the floor slab penetrations that were installed for the fire suppression system within the former Siemens facility. There are three fire suppression utility pipes, which are located in two different areas on the first floor of the building, that have floor slab penetrations. The approximate location of these two areas are identified on Figure 2 (these are sample locations IA9 and IA12 from the 2014 vapor sampling). The IA12 location has two fire risers, identified at fire riser 1 and fire riser 2, with floor slab penetrations and the IA9 location has one fire riser, identified as fire riser 3, with a slightly exposed floor slab. Photographs of the before and after sealing activities for each individual floor slab penetration are included in Attachment A.

In accordance with manufacturer recommendations, three products were used to seal the slab penetrations at each fire riser in the following order: 1) Great Stuff™, an expandable insulating foam; 2) AFM Safecoat DynoSeal, a low-odor, waterproof, vapor-proof sealant; and 3) AFM Safecoat DynoFlex Roof Guard, a mildew and water resistant coating. Great Stuff™ was used to fill the deeper floor slab penetrations at fire risers 1 and 2 that are located at IA12, which are 4 to 6 inches deep (see Attachment A). As presented in Photo 3A of Attachment A, fire riser 3

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[2] RWQCB. 2014. *Approval of Vapor Intrusion Reports for properties at 10900 North Tantau Avenue and 19000 Homestead Road, Cupertino, Santa Clara County.* November 19.

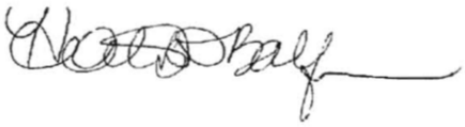
that is located at the IA9 location that does not have a full floor slab penetration, therefore Great Stuff™ sealant was not used at this location.

On 19 December 2014, the Great Stuff™ sealant was sprayed into the two deep slab penetrations at fire risers 1 and 2 located at IA12. After initial drying time, excess foam was cut off with a serrated knife and the foam was left to fully cure for approximately 2 hours. Two coats of AFM Safecoat DynoSeal sealant were then applied to all three fire risers (fire risers 1 and 2 located at IA12 and fire riser 3 located at IA9). Ample time was left in between coats to allow for proper drying and sealing to take place. The AFM Safecoat DynoSeal was left to dry for four days before the final sealing product was applied. On 23 December 2014, two coats of AFM Safecoat DynoFlex Roof Guard sealant were applied on top of the cured AFM Safecoat DynoSeal sealant at each fire riser. The areas were secured and not disturbed while drying took place. Photos of the completed sealant installations are provided in Attachment A.

CLOSING

If you have any questions regarding this submittal, please feel free to contact Heather Balfour at (916) 924-9378 or Kit Soo at (925) 946-0455.

Best Regards,



Heather Balfour, P.E.
Partner

HDB/KS/0201040.01SSC

enclosures:

Figure 1 – Site Location Map
Figure 2 – Site Detail Map
Attachment A – Photographic Log

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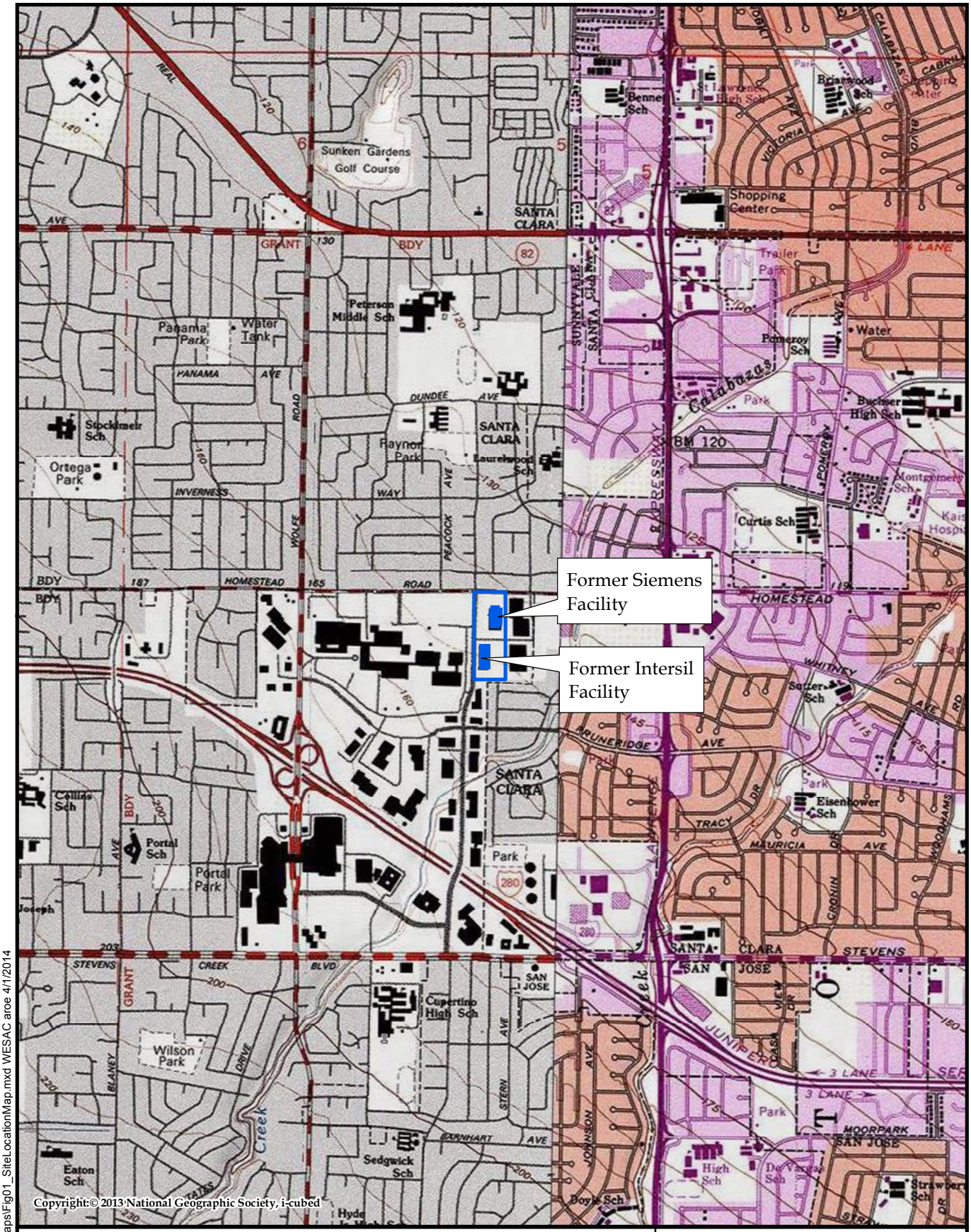
Figures



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0 1000 2000

Scale in Feet

ERM

Intersil/Siemens Site
Cupertino, Califorina

FIGURE 1
SITE LOCATION MAP

PREPARED BY: aroe (ERM)

JOB NO. 01201040
FILE: Fig01_SiteLocationMap

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Homestead Rd

Tantau Ave

VM-5S
VM-5D
2EP
2EPa
P-1A
H-5B
LF-12A
LF-13A
H-1A
P-3A
LF-6A
LF-5B
P-4A
H-2A-S
VM-6S
VM-6D
H-3B
H-4C
VM-4S
VM-4D
VM-3S
VM-3D
MW-1-RU
VM-2S
VM-2D
P-2A
P-5B
1K
LF-7B
1D
IP-1
IP-2
IP-3
G-1A
LF-1B
2B-S
LF-2A
VM-7D
VM-7S
H-XA-S
2D
P-6B
1L
VM-1D
1H-S
VM-1S
LF-11A
FORMER
SIEMENS
FACILITY
VM-8S
VM-8D
LF-10A
4BP
LF-8A
3-XA
3DD
3F
IA-9
SVE-1
WI-1
WE-1
WBC-1
IA-12
3-EB
3E
LF-4A
LF-3B
HMSA-1S
SW-3
W21A
SW-7
W20B
HMSA-2S
LF-9A
EX-1-RL
W22A
W19B
SW-5S
SW-6S
T-2A
F-1A

Forge Dr

Legend

- Groundwater Extraction Well
- Injection Point
- Monitoring Well
- Piezometer
- Vapor Sealing Location (location is approximate)
- Existing Buildings
- Groundwater Remediation Facility
- Approximate Location of Aboveground Utility
- Approximate Location of Underground Utility
- City Block

N

0 25 50

Scale in Feet

Source: ARCADIS, Former Siemens Facility
2006 Annual Report: Figure 3 (dated 1/7/2010).

Intersil/Siemens Site
Cupertino, Califorina

FIGURE 2

SITE DETAIL MAP

ERM

PREPARED BY: austin.phelps

JOB NO. 0201040.04SB
FILE: SMI_01

Attachment A
Photographic Log

Photograph: 1A	*View of the southern fire riser located at sampling location IA12, fire riser 1, before sealant was installed. The slab is about 4 to 6 inches thick at this location.*

Intersil/Siemens Superfund Site	ERM	*19000 E Homestead Road, Cupertino, California*

Photograph: 1B	*View of fire riser 1 after sealant was installed.*

Intersil/Siemens Superfund Site	ERM	*19000 E Homestead Road, Cupertino, California*

Photograph: *2A*	*View of the northern fire riser located at sampling location IA12, fire riser 2, before sealant was installed.*

Intersil/Siemens Superfund Site	ERM	*19000 E Homestead Road, Cupertino, California*

Photograph: *2B*	*View of fire riser 2 after sealant was installed.*

Intersil/Siemens Superfund Site	ERM	*19000 E Homestead Road, Cupertino, California*

Photograph: *3A*	*View of fire riser at IA9 location, fire riser 3, before sealant was installed. There is not a full slab penetration at this location, just a slight exposure below the laminate flooring.*

Intersil/Siemens Superfund Site	ERM	*19000 E Homestead Road, Cupertino, California*

Photograph: *3B*	*View of the fire riser 3 located at sampling location IA9 after sealant was installed.*

Intersil/Siemens Superfund Site	ERM	*19000 E Homestead Road, Cupertino, California*